Application No.: 10/784,376 Office Action dated: December 30, 2009

Reply dated: January 30, 2010

## Amendments to the Claims

No Claims are being amended by the present Response. A listing of all currently pending claims is represented below.

1 - 10. (Canceled)

11. (Previously Presented) A computer-implemented method comprising:

generating a transformation file by employing a query language, said transformation file containing a set of rules to transform data between two or more formats having different shapes;

attaching the transformation file to a workflow, such that the set of rules are referenced from inside the workflow:

associating, at compile time, a first shape of a first data structure with an intermediate shape representation based on the set of rules of the transformation file, wherein the first shape defines a structure and layout of data in the first data structure;

receiving a second data structure during runtime execution of said workflow, said second data structure having a second shape that is different from the first shape of the first data structure;

applying the intermediate shape representation to the second data structure;

mapping the second data structure from the intermediate shape representation to the first shape of the first data structure; and

generating a runtime object containing the data obtained from the second data structure and having the first shape of the first data structure and using the runtime object as input for a component of said workflow.

12 -18. (Canceled)

19. (Previously Presented) A computer-readable storage medium carrying one or more sequences of instructions, which when executed by one or more processors, cause the one or more processors to:

generate a transformation file by employing a query language, said transformation file containing a set of rules to transform data between two or more formats having different shapes;

attach the transformation file to a workflow, such that the set of rules are referenced from inside the workflow:

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associate, at compile time, a first shape of a first data structure with an intermediate shape representation based on the set of rules of the transformation file, wherein the first shape defines a

structure and layout of data in the first data structure;

receive a second data structure during runtime execution of said workflow, said second data

structure having a second shape that is different from the first shape of the first data structure:

apply the intermediate shape representation to the second data structure;

map the second data structure from the intermediate shape representation to the first shape

of the first data structure: and

generate a runtime object containing the data obtained from the second data structure and

having the first shape of the first data structure and using the runtime object as input for a

component of said workflow.

20 - 22. (Canceled)

23. (Previously Presented) The computer-implemented method of claim 1, further comprising:

compiling the transformation file to generate a compiled plan; and

storing the compiled plan for use at runtime, such that the compiled plan is used to convert

data from the intermediate representation.

24. (Previously Presented) The computer-implemented method of claim 1, wherein multiple

data structure sources are combined into a single result object by using the intermediate shape

representation.

25. (Previously Presented) The computer-implemented method of claim 1, wherein the transformation file is included in the workflow by implementing a control within the workflow, said

control invoking transformations during send or receive operations from the workflow.

26 (Previously Presented) A method for declaratively transforming data between different data

formats, said method comprising:

employing a query language to associate a default extensible markup language (XML)

representation with a data shape of each JAVA class in a set of JAVA classes, wherein the set of

JAVA classes are used to communicate information in a workflow:

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invoking the workflow;

receiving an XML document containing data as part of execution of said workflow, said data in the XML document having an XML data shape:

applying the default XML representation to the data in the XML document having the XML data shape; and

mapping the data in the XML document from the default XML representation to the data shape of the JAVA class; and

generating a runtime JAVA object containing data obtained from the XML document, said data having the data shape of the JAVA class.

27. (Previously Presented) The method of claim 26, further comprising:

combining a plurality of XML documents and scalar values in order to generate a single runtime JAVA object.

 (Previously Presented) The method of claim 26, further comprising: storing a plurality of default XML representations in a transformation file;

attaching the transformation file to the workflow, such that the plurality of default XML representations is referenced from within the workflow.

- 29. (Previously Presented) The method of claim 26, wherein an engine receives a query language specification and generates a sequence of rules used to transform the XML document from the XML data shape to the data shape of the JAVA class.
- 30 (Previously Presented) The method of claim 28, wherein the transformation file is included in the workflow by implementing a control within the workflow, said control invoking transformations during send or receive operations from the workflow.